



Jason Uhley

Chief of Watershed Protection

**Riverside County Flood Control and Water Conservation
District**

on behalf of

Riverside County NPDES MS4 Permit Program





Beneficial Use
Restoration

2012 Comprehensive
Bacteria Reduction Plan for
Riverside County

2010 Santa Ana MS4 Permit For
Riverside County

2005 Middle Santa Ana River TMDL

Santa Ana Region Recreation Uses Basin Plan
Amendment



Comprehensive Bacteria Reduction Plan

Step 1:

***Eliminate human
coliform sources***



Tier 2 Source Assessment Plan

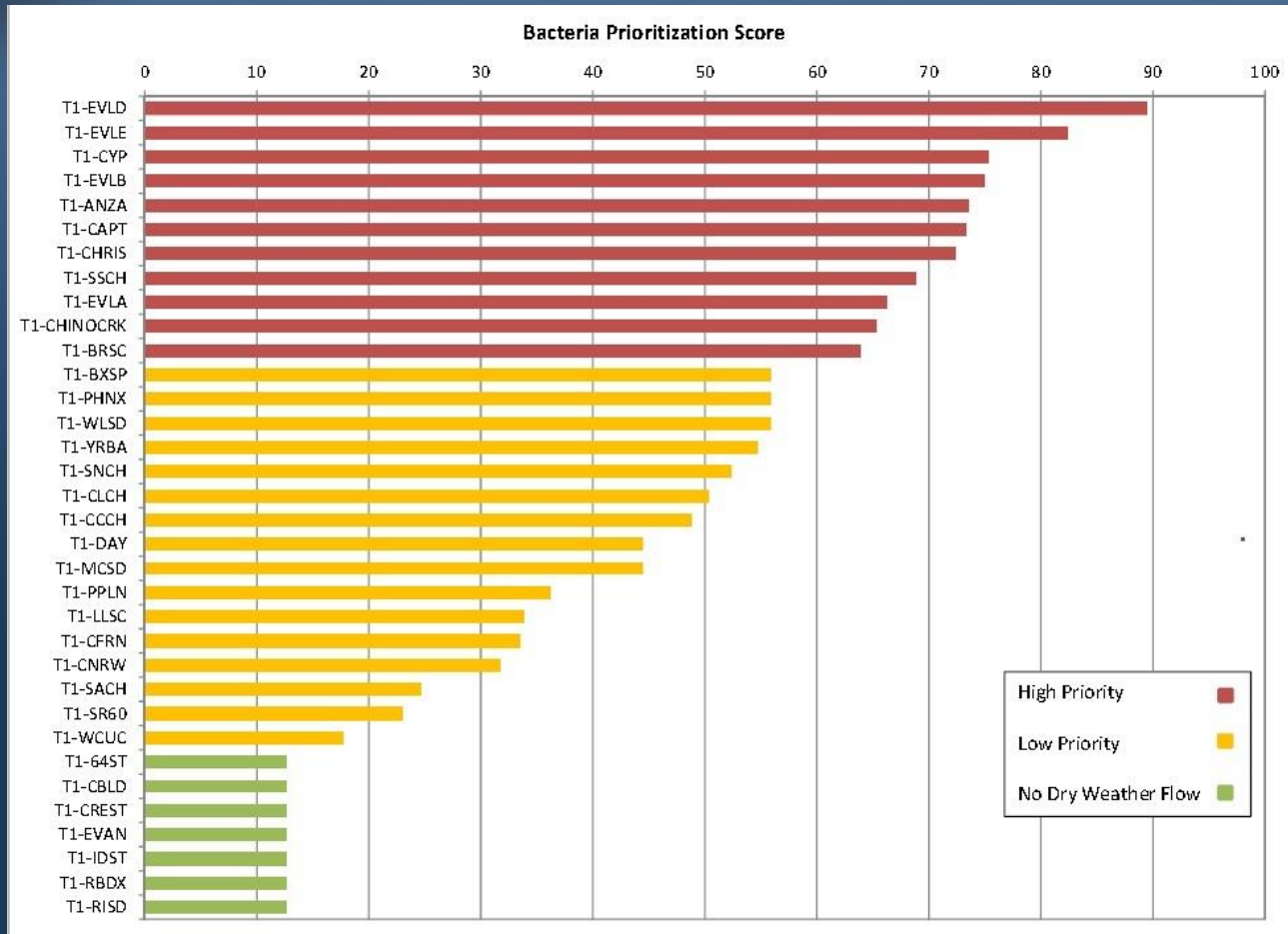


Figure 3-8
Bacteria Prioritization Score for all Tier 1 sites



Comprehensive Field Investigations





Use aggressive
microbial source
assessment to identify
and eliminate



Sewer Cross
Connections



High Risk
Homeless
Encampments



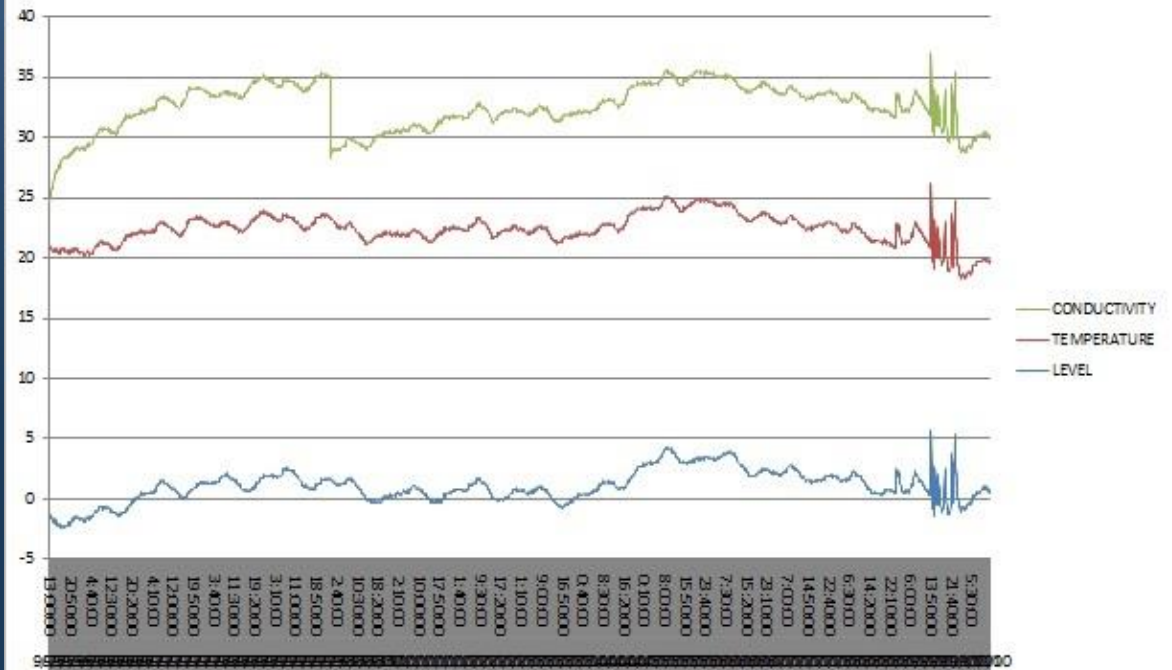
Leaking
Septics



Comprehensive Bacteria Reduction Plan

Step 2:

***Eliminate Nuisance Dry
Weather Flows***





Comprehensive Bacteria Reduction Plan

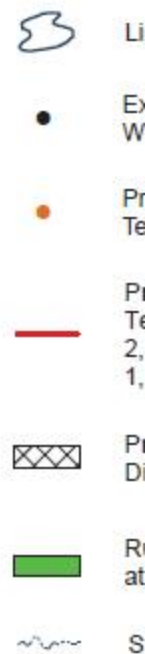
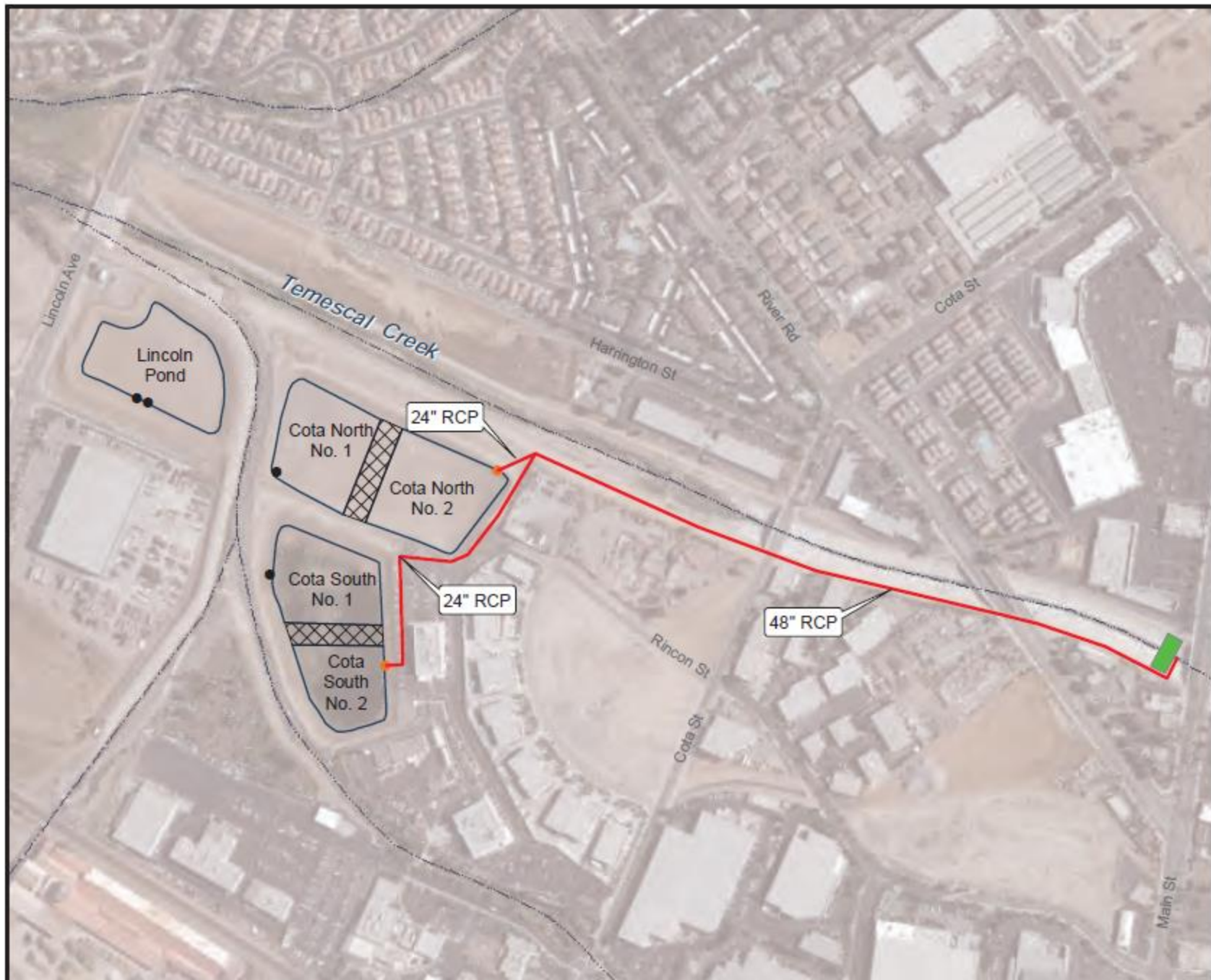
Step 3: Supplement with structural solutions where necessary

- Dry Weather Diversion
- MS4 Retrofit Projects
- Integrated Water Management



A UAA and Diversion Project
is being considered here
(Temescal Channel):





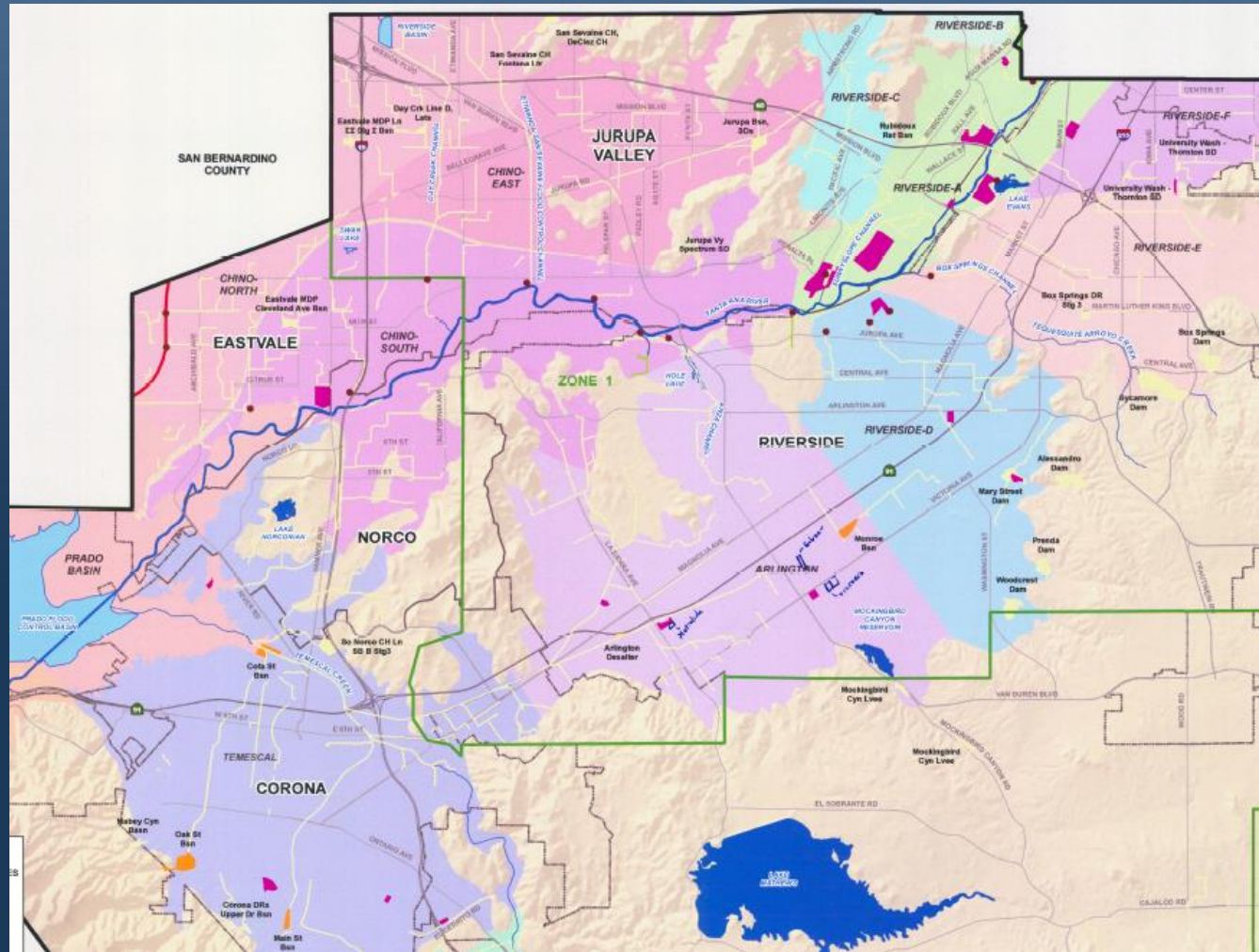


To Better Protect Downstream Beneficial Uses Here:





We are in the process of identifying other retrofit opportunities.





Comprehensive Bacteria Reduction Plan

Step 4:

Characterize Other Sources

- Natural Sources
- Sediment Resuspension
- Other Sources



Evaluate Other Sources

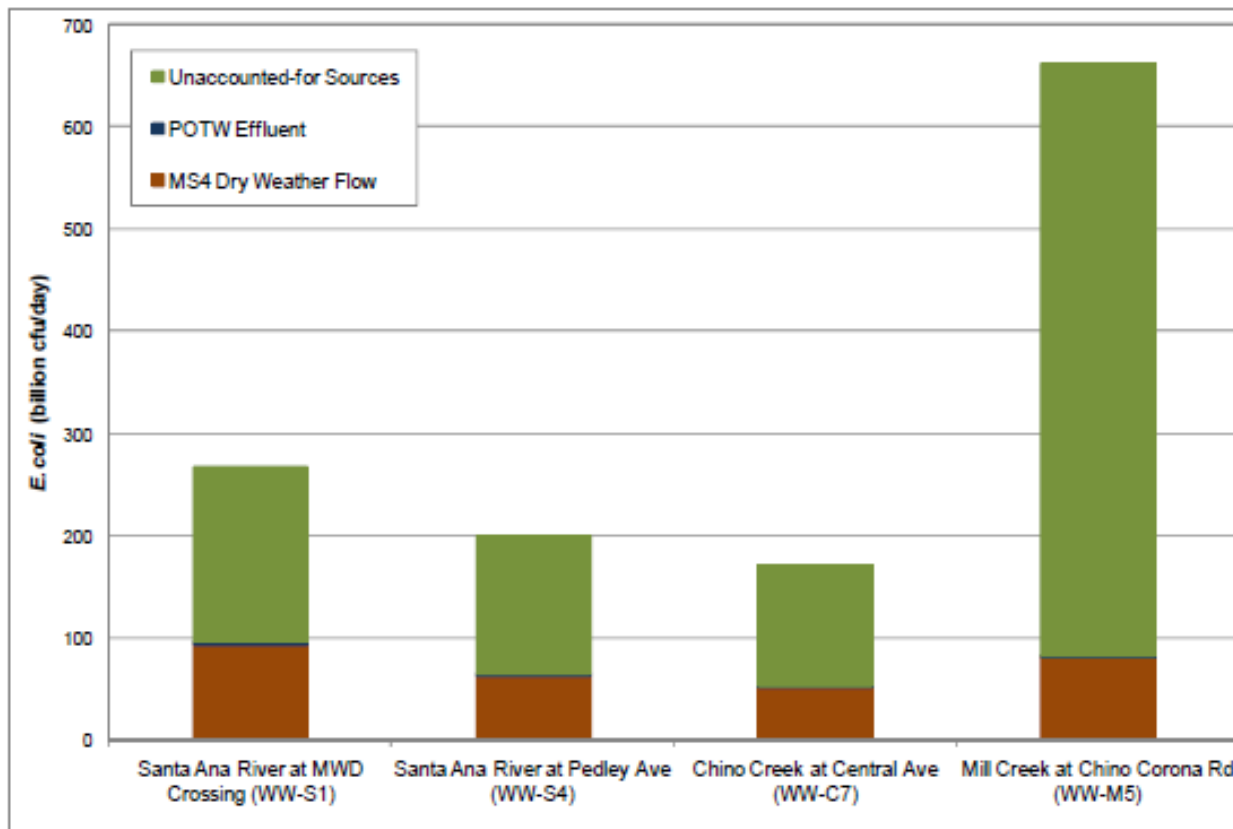


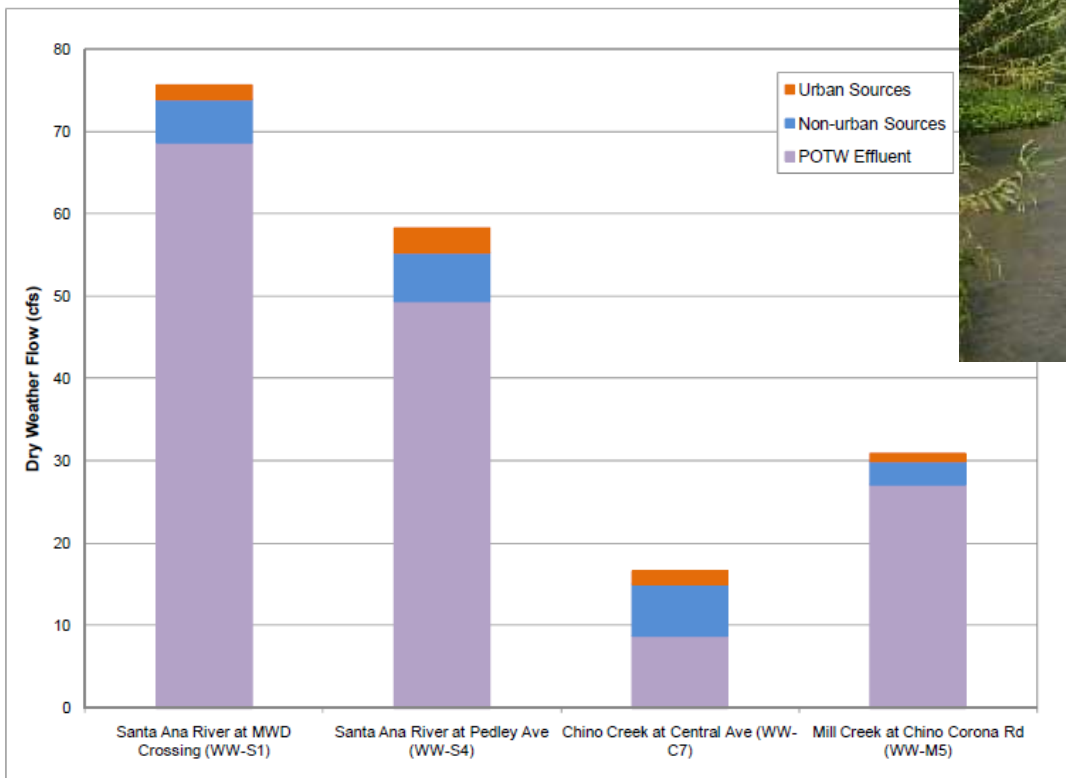
Figure 3-2. Estimated Relative Sources of Bacterial Indicators at Watershed-Wide Compliance Locations



END OF SHOW



Santa Ana River



primarily of POTW effluent (Figure 3-1).

Figure 3-1. Estimated Relative DWF Contributions to Watershed-Wide Compliance Sites



Photos of removal of Box Springs Sewer Cross Connection Elimination as a result of 2008 Microbial Source Assessment Study





Homeless Camp Abatement
Temescal Wash
El Sobrante Road and 6th

03.27.2008 09:39



Homeless Camp Abatement
Temescal Wash
El Sobrante Road and 6th

01/19/2012 09:53